

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-52. (Canceled)

53. (Previously Presented) A method for eliciting an immune response against an A/E pathogen, or component thereof, in an animal comprising administering to the animal an effective amount of a composition comprising:

- i) a polypeptide which comprises an amino acid sequence substantially identical to the sequence of SEQ ID NOs: 22-24 or a fragment or variant thereof,
- ii) a nucleic acid molecule which comprises a nucleotide sequence substantially identical to the sequence of SEQ ID NOs: 1-3 or a fragment or variant thereof,
- iii) a nucleic acid molecule encoding a polypeptide which comprises an amino acid sequence substantially identical to the sequence of SEQ ID NOs: 22-24 or a fragment or variant thereof, or
- iv) a cell culture supernatant which comprises a polypeptide comprising an amino acid sequence substantially identical to the sequence of SEQ ID NOs: 22-24, or a fragment or variant thereof, thereby eliciting an immune response in the animal.

54. (Previously Presented) A method for reducing colonization of an A/E pathogen in an animal, the method comprising administering to the animal an effective amount of a composition comprising:

- i) a polypeptide which comprises an amino acid sequence substantially identical to the sequence of SEQ ID NOs: 22-24 or a fragment or variant thereof,
- ii) a nucleic acid molecule which comprises a nucleotide sequence substantially identical to the sequence of SEQ ID NOs: 1-3 or a fragment or variant thereof,

iii) a nucleic acid molecule encoding a polypeptide which comprises an amino acid sequence substantially identical to the sequence of SEQ ID NOs: 22-24 or a fragment or variant thereof, or

iv) a cell culture supernatant which comprises a polypeptide comprising an amino acid sequence substantially identical to the sequence of SEQ ID NOs: 22-24, or a fragment or variant thereof, thereby reducing colonization of the A/E pathogen in the animal.

55. (Previously Presented) A method for reducing shedding of an A/E pathogen in an animal comprising administering to the animal an effective amount of a composition comprising:

i) a polypeptide which comprises an amino acid sequence substantially identical to the sequence of SEQ ID NOs: 22-24 or a fragment or variant thereof,

ii) a nucleic acid molecule which comprises a nucleotide sequence substantially identical to the sequence of SEQ ID NOs: 1-3 or a fragment or variant thereof,

iii) a nucleic acid molecule encoding a polypeptide which comprises an amino acid sequence substantially identical to the sequence of SEQ ID NOs: 22-24 or a fragment or variant thereof, or

iv) a cell culture supernatant which comprises a polypeptide comprising an amino acid sequence substantially identical to the sequence of SEQ ID NOs: 22-24, or a fragment or variant thereof, thereby reducing shedding of the A/E pathogen in the animal.

56. (Previously Presented) The method of claim 53, wherein the animal is a ruminant.

57. (Original) The method of claim 56, wherein the ruminant is a bovine or ovine subject.

58. (Previously Presented) The method of claim 53, wherein the animal is a human.

59-70. (Canceled)

71. (Previously Presented) The method of claim 53, wherein the A/E pathogen is enterohemorrhagic *E. coli* (EHEC), enteropathogenic *E. coli* (EPEC), or *Citrobacter rodentium*.

72. (Original) The method of claim 71 wherein the EHEC is EHEC 0157:H7 or EHEC 0157:NM.

73. (Original) The method of claim 71 wherein the EPEC is EPEC 0127:H6.

74-85. (Canceled)

86. (Previously Presented) The method of claim 53, wherein the composition is provided in combination with a physiologically acceptable carrier.

87. (Previously Presented) The method of claim 53, wherein the polypeptide comprises 20% of the cell protein present in the composition.

88. (Previously Presented) The method of claim 53, wherein the composition further comprises a EspA, EspB, EspD, EspP, Tir, Shiga toxin 1, Shiga toxin 2, or intimin polypeptide.

89. (Previously Presented) The method of claim 53, wherein the composition further comprises an adjuvant.

90. (Previously Presented) The method of claim 53, further comprising treating or preventing infection by the A/E pathogen.

91. (Previously Presented) The method of claim 54, wherein the animal is a ruminant.

92. (Previously Presented) The method of claim 55, wherein the animal is a ruminant.

93. (Previously Presented) The method of claim 54, wherein the animal is a human.

94. (Previously Presented) The method of claim 55, wherein the animal is a human.